



Features

- TMS34010 Graphics Processor
- 16 or 256 Colors
- Up to 1024 x 768 Screen Resolution
- Interlaced and Non-Interlaced Operation
- Mouse and Keyboard ports
- Analog or flat panel output

The RG-750

The TMS34010-based RG-750 is a full function graphics boards for use with VGA and SVGA color video monitors, complete with keyboard and mouse interfaces, programmable resolution, and on-board firmware. They support flicker-free non-interlaced screen resolutions from 640 x 480 to 1024 x 768 @ 60Hz.

Software support includes the Standard Drawing Library (SDL) firmware and drivers for VxWorks based systems. VMEbus board address is selectable with factory-installed. Please see ordering information for details. Custom addressing is also available for a nominal fee.

Hardware Features

- TMS34010 Graphics Processor
- 16/256 colors
- Standard Drawing Library (SDL) Firmware
- Up to 4 Mbytes DRAM (1 Mbyte standard)
- Video DAC with 256x24 color lookup table
- DB15 VGA Interface
- Sync-On-Green
- BNC Video Interface (Option)
- Planar EL Flat panel Interface (Option)
- RS-232 interface for Mouse or Serial Port
- AT keyboard interface
- Supports interlaced and non-interlaced video
- VMEbus addressing PAL sets: -PS25, -PS26, -PS27, -PS28

Standard Drawing Library (SDL)

SDL, is a scaleable C graphics library. It is small, compact, ROMable, and offers device independent graphics functions for board level and embedded systems applications. Limiting the number of functions used in a given application can control its target code size. SDL is written in ANSI C and is supplied in library format. This simple to use library provides a

complete set of graphics primitives that can be extended by adding utility functions for specialized graphics tasks. Included is a generic graphics driver module that provides the hardware specific routines needed to interface to the graphics hardware in a user's system.

SDL Software Features

- Solid (thin and wide) and Dashed Lines and Rectangles
- Circles, Ellipses, and Arcs
- Filled Circles, Chords, Sectors, and Polygons
- Solid and Pattern Fills - Pixel Processing
- Proportional and Fixed Width Fonts
- Clipping Rectangle and Logical Origin
- Screen to Screen and Host to Screen Image Copy
- Mouse and Keyboard Support

Product Specifications

Graphics Controller	TMS34010
Memory Configuration	1MB or 4MB DRAM 1MB underlay VRAM 512KB overlay VRAM
Display Colors	16 or 256 colors
Overlay/Underlay Colors	16 colors overlay 256 color underlay
Programmable Resolutions	640h x 480v x 4 or 8-bits 800h x 600v x 4 or 8-bits 1024h x 768v x 4 or 8-bits
VMEbus interface	A16, D16; A24, D16; A32, D16
Dimensions	6U VME
Video Connector	DB15-HD VESA (VGA) BNC (option)
Analog Monitor Support	Standard and multifrequency monitors, including Sync-On-Green
Flat Panel Support	Planar EL interface (option)
Software Support	Standard Drawing Library (SDL)
Power Requirements	+5V @ 3.0 A (Max.) ±12V @ 0.2 A (Max.)
EL Option (added to the above 5V)	+5V @ 0.2A +12V @ 2.0A
Environment	
Operating temperature	0°C to +55°C
Storage temperature	-40°C to +65°C
Humidity	0% - 95% non-condensing
Altitude	7,500 feet

Ordering Information

Standard Configuration:

RG-750 - 6U VME board, 1 MB DRAM

Option	Description	A24 Address	A32 Address
-PS25	Interface PAL Set	E00000h	E000 0000h
-PS26	Interface PAL Set	D00000h	D000 0000h
-PS27	Interface PAL Set	800000h	8000 0000h
-PS28	Interface PAL Set	A00000h	A000 0000h
-CP	Custom Interface PAL Set	xxxxxxh	xxxx xxxxxh
-50Hz	Specifies 50 Hz video timing		
-M4	Specifies 4MB of DRAM		
-EL1	Interface and Firmware for EL7768MS		
-BNC	Optional RGB BNC video connectors		

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